Electronic Version
Stylesheet Version v1.1.1

Claims

[c1] 1. A non-lethal telescoping cartridge comprising:
a cartridge case having a base, a circumferential portion and a forward end, the base having an aperture therethrough and a step formed adjacent the circumferential portion, the circumferential portion defining a rear low pressure chamber, the forward end having a cartridge case ridge formed therein;
a rear high/low pressure chamber disposed in the cartridge case aperture and within the rear low pressure chamber, the rear high/low pressure chamber having a base end, a circumferential portion defining a powder containment area, and a forward end having a firing pin chamber formed therein;
a cartridge body slidingly engaged on the cartridge case, the cartridge body including a ridge formed on a rear end thereof, the ridge of the cartridge body cooperating with the ridge of the cartridge case to limit relative movement of the cartridge body and the cartridge case, the cartridge body including a step formed on a forward end thereof;
a payload cup movably disposed adjacent the forward end of the cartridge case and inside the cartridge body,

the payload cup having a base defining a forward low pressure chamber and a circumferential portion defining a payload containment area, the circumferential portion having a payload cup boss formed thereon, the payload cup boss cooperating with the step on the forward end of the cartridge body to limit relative movement of the payload cup and the cartridge body;

a payload support wall disposed between the forward low pressure chamber and the payload containment area;

a forward high/low pressure chamber disposed between the forward end of the rear high/low pressure chamber and the payload support wall, the forward high/low pressure chamber having a base end defining a primer cup, a circumferential portion defining a powder containment area, and a forward end adjacent the payload support wall;

at least one non-lethal projectile disposed in the payload containment area;

an end cap removably disposed on the forward edge of the cartridge case; and

a spring disposed between the payload cup base and the interior portion of the base of the cartridge case.

[c2] 2. The non-lethal cartridge of claim 1 further comprising rifling formed on an inner surface of the payload cup for launching spin stabilized projectiles.

[c3] 3. The non-lethal cartridge of claim 1 further comprising a shoulder formed on the exterior of the circumferential portion of the cartridge case to prevent sliding of the payload cup relative to the cartridge case when loading of the cartridge into a weapon.

[c4] 4. The non-lethal cartridge of claim 1 wherein the spring comprises a hollow cylinder.

[c5] 5. The non-lethal cartridge of claim 1 wherein the spring is made of a polymer.

[c6] 6. The non-lethal cartridge of claim 1 wherein the rear high/low pressure chamber has a pressure relief hole formed therein for venting propellant gases into the rear low pressure chamber.

[c7] 7. The non-lethal cartridge of claim wherein the rear high/low pressure chamber is tapered from the base end to the forward end thereof.

[c8] 8. The non-lethal cartridge of claim 1 further comprising a primer disposed within the base end of the rear high/low pressure chamber.

[c9] 9. The non-lethal cartridge of claim 1 further comprising a firing pin disposed within the firing pin chamber.

[c10] 10. The non-lethal cartridge of claim 1 further comprising a primer disposed within the primer cup located in the base end of the forward high/low pressure chamber.

[c11] 11. The non-lethal cartridge of claim 10 further comprising a primer retainer disposed around the base end of the forward high/low pressure chamber to retain the primer.

[c12] 12. The non-lethal cartridge of claim 1 wherein the at least one non-lethal projectile comprises a single non-lethal projectile disposed in the payload containment area.

[c13] 13. The non-lethal cartridge of claim 1 further comprising a plurality of non-lethal projectiles disposed in the payload containment area.